

ABSTRACT OF THE DISCLOSURE

A positive active material for rechargeable lithium batteries includes an active material component processed from a manganese-based compound. The transition metal compound is selected from Li_xMnO_2 , Li_xMnF_2 , Li_xMnS_2 ,
5 $\text{Li}_x\text{MnO}_{2-z}\text{F}_z$, $\text{Li}_x\text{MnO}_{2-z}\text{S}_z$, $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_2$, $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{F}_2$, $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{S}_2$, $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{F}_z$, $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{S}_z$, $\text{Li}_x\text{Mn}_2\text{O}_4$, $\text{Li}_x\text{Mn}_2\text{F}_4$, $\text{Li}_x\text{Mn}_2\text{S}_4$, $\text{Li}_x\text{Mn}_2\text{O}_{4-z}\text{F}_z$, $\text{Li}_x\text{Mn}_2\text{O}_{4-z}\text{S}_z$, $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$, $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{F}_4$, $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{S}_4$, $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{F}_z$, or $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{S}_z$ where $0 < x \leq 1.5$, $0.05 \leq y \leq 0.3$, $z \leq 1.0$ and M is selected from Al, Co, Cr, Mg, Fe or La. A metallic oxide is coated on the active material component.